

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): December 14, 2007

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: St. Louis, Creve Coeur Creek Sanitary Trunk Sewer Relief Phase II, MVS-2007-631-002-SNR_s02 and w03

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Missouri County/parish/borough: St. Louis County City: St. Louis
Center coordinates of site (lat/long in degree decimal format): Lat. 38:39:57.1461° **N**, Long. -90:30:01.1329° **W**.
Universal Transverse Mercator: 15 North

Name of nearest waterbody: Creve Coeur Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Creve Coeur Lake

Name of watershed or Hydrologic Unit Code (HUC): Lower Missouri

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☒ Field Determination. Date(s): August 15, 2007

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- ☒ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☒ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 120 linear feet: 6 width (ft) and/or 0.02 acres.

Wetlands: 0.30 acres in total.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”: .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: 45 **acres**

Average annual rainfall: 40 inches

Average annual snowfall: 9 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **2-5** river miles from TNW.

Project waters are **1 (or less)** river miles from RPW.

Project waters are **2-5** aerial (straight) miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: The unnamed non-RPW and its associated wetland flow directly into Creve Coeur Creek. Creve Coeur Creek flows directly into Creve Coeur Lake, which has been identified as a

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

TNW by the St. Louis District. Creve Coeur Lake is the largest natural lake within the state of Missouri. Because the lake is currently and historically tied to the Missouri River through a navigable section of Creve Coeur Creek (i.e., non-motorized recreational watercraft), it has been determined that the lake is susceptible (presently and historically) for use to transport interstate or foreign commerce. Therefore, the lake has been identified as a Traditional Navigable Water (TNW) by the St. Louis

Tributary stream order, if known: First.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain:.

Tributary properties with respect to top of bank (estimate):

Average width: 10 feet
Average depth: 1.5 feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

<input checked="" type="checkbox"/> Silts	<input type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input checked="" type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The on-site segment of s02 maintained a stable stream channel with a gently sloping gradient. The banks were vegetated with mostly bush honeysuckle and scattered trees
Presence of run/riffle/pool complexes. Explain: No riffle pool complexes were observed at the crossing.

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): <5%

(c) Flow:

Tributary provides for: Intermittent but not seasonal flow

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime:

Other information on duration and volume: .

Surface flow is: **Discrete and confined**. Characteristics:.

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

<input checked="" type="checkbox"/> Bed and banks	
<input checked="" type="checkbox"/> OHWM ⁵ (check all indicators that apply):	
<input checked="" type="checkbox"/> clear, natural line impressed on the bank	<input checked="" type="checkbox"/> the presence of litter and debris
<input checked="" type="checkbox"/> changes in the character of soil	<input checked="" type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input checked="" type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input checked="" type="checkbox"/> scour
<input checked="" type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input checked="" type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. ⁶ Explain: .	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input type="checkbox"/> High Tide Line indicated by:	<input type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

⁵A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁶Ibid.

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Water clarity appeared to be clear. However, the stream channel is located within a densely populated section of St. Louis County. Although there were no observable pollutants, potential sources of pollution within the urbanized setting include non-point source discharges from fertilizer and pesticide applications to on-site lawns

Identify specific pollutants, if known: Prior to 2002, downstream Creve Coeur Lake, to which this stream eventually flows, was on the State of Missouri's list of impaired waters for elevated levels of Chlordane

(iv) **Biological Characteristics. Channel supports (check all that apply):**

☒ Riparian corridor. Characteristics (type, average width): Stream channel is enveloped by a forested corridor for its duration within the proposed alignment. The forested conditions appeared to be dominated by a local, invasive-exotic called bush honeysuckle. Despite the lack of diversity, the honeysuckle still provides stream stabilization properties, as well as shade to the stream channel.

☐ Wetland fringe. Characteristics:.

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.30 acres

Wetland type. Explain: The wetland was mostly considered a scrub-shrub wetland due to limited overstory vegetation and presence of species within the shrub layer. Dominant species observed included spicebush and bush honeysuckle

Wetland quality. Explain: The quality was not considered to be high quality due to the presence of reed canary grass in the understory

Project wetlands cross or serve as state boundaries. Explain:.

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain:

Surface flow is: **Overland sheetflow**

Characteristics:

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☒ Discrete wetland hydrologic connection. Explain:

☒ Ecological connection. Explain:

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **2-5** river miles from TNW.

Project waters are **2-5** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **50 - 100-year** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known: No specific pollutants observed. However, the wetlands are located within a densely populated section of St. Louis County. Although there were no observable pollutants, potential sources of pollution within the urbanized setting include non-point source discharges from fertilizer and pesticide applications to on-site lawns .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

☐ Riparian buffer. Characteristics (type, average width):

☒ Vegetation type/percent cover. Explain: Scrub-shrub habitat consisting of mostly spicebush and bush honeysuckle in the overstory and reed canary grass in the understory

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings: Provides habitat for wetland dependent species such as amphibians, waterfowl, and songbirds.

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **1**

Approximately (0.30) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
w03 - Yes	0.30 acres		

Summarize overall biological, chemical and physical functions being performed: W03 is positioned between an upstream (labeled as s02) and a downstream segment (labeled as s03) of a non-RPW. As the non-RPW flows eastward toward Creve Coeur Creek, it crosses through a maintained powerline easement. The discrete path of the water course disperses and develops conditions to support a scrub-shrub wetland (dominated by spicebush and reed canary grass) within the easement. The wetland's hydrology is mostly supplied through surface flow hydrology from s02. However, it is likely that there is additional hydrologic support through overland flow, groundwater exchange, and overbank flow from Creve Coeur Creek. On the east side of the powerline easement and proposed alignment, the non-RPW regains channel features (now labeled as s03), and wetland conditions become discontinued. Because there is a channel entering and exiting the wetland, W03 is considered as a "open" system.

The presence of w03 physically affects the downstream conditions of s03 through intercepting streamflow received from a confined channel. Wetland plants, leaf litter, and other organic materials slow the flow of water, causing water to disperse throughout the wetland area. As water transport becomes temporarily slowed, opportunities for natural losses to the hydrologic cycle present itself (i.e., plant uptake, evapotranspiration, evaporation, and groundwater infiltration). Therefore, water transport to Creve Coeur Creek is anticipated to be slowed through the interception of wetlands. As a result of slower water velocities and losses through the hydrologic cycle, the physical features of the downstream segment of s03 become less pronounced. Overall, the stream loses its erosive force, and the interception of hydrology physically alters the downstream segment of s03, subsequently changing the velocity of water that proceeds on to Creve Coeur Creek.

Wetland w03 has the potential to help ameliorate the affect of adjacent urbanization on the water quality of Creve Coeur Creek, Creve Coeur Lake, and the Missouri River. Wetlands have long been termed the "kidneys of the landscape", due to their capacity to assist with pollutant filtration and retention. Within the Creve Coeur Creek watershed, several opportunities exist for non-point source pollutants to enter the waterways (i.e., waste from domestic animals, pesticide, and fertilizer applications). Wetlands have been documented as having the capability of providing a long-term sink for these types of nutrients, primarily through their biogeochemical cycling (Walbridge and Lockaby 1994, Axt and Walbridge 1999). Specifically, wetlands that have developed within mineral soils, such as w03, may even possess a greater capacity to assist with nutrient and pollutant retention due to a large source of binding cations (Richardson 1985).

In general, it has been documented that species richness and primary productivity are very high within wetlands that maintain open flow systems with regular pulsing hydroperiods. It is thought that flowing water can be a stimulus to plant productivity, likely caused by their ability to continually provide a renewable source of mineral input (Mitsch and Gosselink 2000). Flooding also can temporarily induce anaerobic conditions, converting some micronutrients (i.e, Fe and Mn) into a form more readily available for plant uptake. Generally, greater plant productivity can result in a wider variety of other living organisms that utilize these systems. Greater production of plant biomass can typically convert to a more abundant food supply for local wildlife. Also, when water may become sparsely available, water is made available to animals through the moist hydrophytic vegetation or within shallow wetland pools. It has been previously recognized on this JD form that urban wildlife are under considerable pressure for having cover, food, and an available water supply. It is likely that many of the local wildlife species are highly dependent upon these wetlands for sustainability

LITERATURE CITED

- Axt, J.R., and M.R. Walbridge. 1999. Phosphate removal capacity of palustrine forested wetlands and adjacent uplands in Virginia. Soil Science Society of American Journal 63:1019-1031.
- Mitsch, W.J. and J.G. Gosselink. 2000. Wetlands. John Wiley and Sons, Inc. New York, New York.
- Walbridge, M.R. and B.G. Lockaby. 1994. Effects of forest management on biogeochemical functions in southern forested wetlands. Wetlands 14:10-17.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: The unnamed, non-Relatively Permanent Flow Water (non-RPW) possesses features of an intermittent tributary with an ordinary high water mark (OHW). The stream channel appears to originate on the east side of Highway 141, and it is presumed that the non-RPW receives various roadside pollutants based on its proximity to the roadway and associated drainages. The non-RPW averages approximately 8 feet at the bed width and approximately 10 feet for the bank height. Features observed supporting clear evidence of flow and an OHW throughout the entire channel include: sediment deposition, scour, and a clear line impressed on the bank. Based on observed characteristics and its location within the 45 acre watershed, the unnamed tributary indicates second order stream hydrology. The stream channel flows through a 0.30- acre scrub-shrub wetland (w03), as it passes through a powerline easement. However, stream conditions resume on the downstream side of the powerline easement. Generally, there is no interruption of flow or hydrologic connectivity between the tributary, wetland, and Creve Coeur Creek. Based on observed conditions, the unnamed tributary has the capacity to carry surface flow hydrology via a discrete and confined channel to the open, wetland system. It regains channel definition once the stream channel passes through the wetland/powerline easement to Creve Coeur Creek. The on-site segment of Creve Coeur Creek is perennial, which flows to Creve Coeur Lake, then on out to the Missouri River. It has been determined that the non-RPW maintains hydrologic connectivity to Creve Coeur Creek and Creve Coeur Lake, thereby providing a significant nexus between the non-RPW and a TNW. Hydrologic connectivity refers to the flow that transports organic matter and nutrients, energy, and aquatic organisms throughout the system (Freeman et al., 2006). The following outlines how the non RPW and associated wetland maintains a significant nexus to Creve Coeur Creek and the Missouri River through its hydrologic connectivity.

The unnamed RPW and instream wetland influences the chemistry of Creve Coeur Creek through its transport of sediments and nutrients and geochemical cycling. Rainfall within this area provides a frequent pulse of hydrology, thus providing a source of hydrology to the non-RPW and wetland. It is anticipated that the wetland greatly contributes to the chemical make up of non-RPW, through its ability to temporarily slow the flow of water and transform mineral elements. Although specific pollutants were not observed within the wetland or channel, it is anticipated that the whole system is the recipient of non-point source pollutants such as fertilizers, pesticides, and other pollutants that are common to an urban environment. These nutrients and chemicals are likely transported downstream through the non-RPW into the wetland. Wetlands have long been hypothesized as nutrient sinks, anticipated to remove nutrients either through plant uptake or a long term adsorption and/or precipitation to other binding ions (see section B3).

The non-RPW exits the wetland and flows on to Creve Coeur Creek, maintaining a hydrologic connection through an open and defined channel. Due to the location of the in-stream wetland, it has been determined that there is more than an insubstantial or speculative effect on the physical, biologic, and chemical conditions of the downstream segment of s03 and Creve Coeur Creek. Evidence of water flow was indicated through the presence of clear indicators of an OHW. Due to the hydrologic connection, the unnamed tributary has the capacity to contribute hydrology, retain pollutants within the wetland, provide habitat for aquatic life cycles, and provide organic input to downstream waters. Based on these hydrologic connections, it has been determined that the non-RPW and instream wetland maintain a significant nexus to Creve Coeur Creek, and subsequently Creve Coeur Lake and the Missouri River.

LITERATURE CITED

Freeman, M.C., C.M. Pringle, and C. R. Jackson. 2007. Hydrologic Connectivity and the Contribution of Stream Headwaters to Ecological Integrity at Regional Scales. *Journal of the American Water Resources Association* 43:5-14

Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:

- ☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.

2. RPWs that flow directly or indirectly into TNWs.

- ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
☐ Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁷ that flow directly or indirectly into TNWs.

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☒ Tributary waters: **25** linear feet **8-10** width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
☐ Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands abutting to non-RPWs that flow directly or indirectly into TNWs.

⁷See Footnote # 3.

- ☒ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: **0.30** acres.

7. Impoundments of jurisdictional waters.⁸

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from “waters of the U.S.,” or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):⁹

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in “SWANCC,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR).
☐ Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

⁸ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

⁹ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - ☒ Office concurs with data sheets/delineation report.
 - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:.
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
 - ☐ USGS NHD data.
 - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Creve Coeur Quad.
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: St. Louis County, Illinois.
- ☒ National wetlands inventory map(s). Cite name: Creve Coeur Quad.
- ☐ State/Local wetland inventory map(s):.
- ☒ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date):.
or ☐ Other (Name & Date):.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify):Field review November 28, 2007.

B. ADDITIONAL COMMENTS TO SUPPORT JD:.